

FEB 28 2007

Docket No. 740709-507
Application No.: 10/628,240
Page 9 of 15**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A flexible heat exchanger comprising a pair of ~~plane~~ flexible multilayer thermoplastic polyimide polymer films each of which comprises an aromatic polyimide substrate film showing no glass transition temperature or a glass transition temperature of 340°C or higher and a thermoplastic aromatic polyimide surface film showing a glass transition temperature in the range of 190 to 300°C ~~fixed to the substrate film in such manner that in which~~ the surface films of the flexible multilayer thermoplastic polyimide films face each other and ~~which~~ are in part fused together, whereby producing between the flexible multilayer thermoplastic polyimide polymer films a conduit pattern through which a fluid passes,

wherein said flexible multilayer thermoplastic polyimide films have ~~flexible heat exchanger~~ has a thickness in the range of 10 [[5 μ m]] to 125 μ m [[20 mm]] and comprises a linear expansion coefficient of MD, a linear expansion coefficient of TD and an average of linear expansion coefficients of MD and TD, in the range of 10×10^{-6} to 35×10^{-6} cm /cm/°C at 50-200°C.

2-4. (Cancelled)

5. (Previously Presented) The flexible heat exchanger of claim 1, further comprising a heat conductive film on a surface thereof.

6. (Original) The flexible heat exchanger of claim 5, wherein a flexible film having a heat radiant metal layer on one side is fixed to the heat conductive film.

7. (Original) The flexible heat exchanger of claim 6, which has a heat resistant porous film on a surface having no heat conductive film thereon.

Docket No. 740709-507
Application No.: 10/628,240
Page 10 of 15

8. (Currently Amended) A space vehicle having the flexible heat exchanger of claim 1 on a surface thereof[[.]], in which the flexible heat exchanger comprises a pair of flexible multilayer thermoplastic polyimide films each of which comprises an aromatic polyimide substrate film showing no glass transition temperature or a glass transition temperature of 340°C or higher and a thermoplastic aromatic polyimide surface film showing a glass transition temperature in the range of 190 to 300°C in which the surface films of the flexible multilayer thermoplastic polyimide films face each other and are in part fused together, whereby producing between the flexible multilayer thermoplastic polyimide films a conduit pattern through which a fluid passes, wherein said flexible multilayer thermoplastic polyimide films have a thickness in the range of 10 to 125 μm and comprises a linear expansion coefficient of MD, a linear expansion coefficient of TD and an average of linear expansion coefficients of MD and TD, in the range of 10×10^{-6} to $35 \times 10^{-6} \text{ cm/cm/}^\circ\text{C}$ at 50-200°C.

9-20. (Canceled)